

Title (en)
PROCESS TO REDUCE ACIDITY OF CRUDE OIL

Title (de)
VERFAHREN ZUR VERRINGERUNG DER ACIDITÄT VON ROHÖL

Title (fr)
PROCESSUS DE RÉDUCTION D'ACIDITÉ DE PÉTROLE BRUT

Publication
EP 2222819 A2 20100901 (EN)

Application
EP 08858300 A 20081124

Priority
• US 2008084530 W 20081124
• US 99066207 P 20071128
• US 99064107 P 20071128
• US 99064807 P 20071128
• US 99065807 P 20071128
• US 99067007 P 20071128

Abstract (en)
[origin: US2009139715A1] A process for upgrading whole crude oil utilizing a recovery fluid, depressurizing an extracted whole crude oil/recovery fluid mixture in a step-wise fashion, and subsequently contacting at least a portion of the whole crude oil with supercritical water fluid to produce high value crude oil having low sulfur, low nitrogen, and low metallic impurities for use as hydrocarbon feedstock.

IPC 8 full level
C10G 31/08 (2006.01); **B01J 21/06** (2006.01); **C10G 75/00** (2006.01)

CPC (source: EP US)
B01J 3/008 (2013.01 - US); **C10G 9/00** (2013.01 - EP US); **C10G 31/08** (2013.01 - EP US); **C10G 45/26** (2013.01 - EP US); **C10G 47/32** (2013.01 - EP US); **C10G 75/00** (2013.01 - EP US); **E21B 43/16** (2013.01 - EP US); **C10G 2300/1033** (2013.01 - EP US); **C10G 2300/202** (2013.01 - EP US); **C10G 2300/205** (2013.01 - EP US); **C10G 2300/206** (2013.01 - EP US); **C10G 2300/4081** (2013.01 - EP US); **C10G 2300/805** (2013.01 - EP US)

Citation (search report)
See references of WO 2009073442A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
US 2009139715 A1 20090604; US 7740065 B2 20100622; BR PI0819674 A2 20181023; BR PI0819687 A2 20180911; BR PI0820360 A2 20150519; BR PI0820360 B1 20170425; BR PI0820362 A2 20150512; BR PI0820363 A2 20150512; BR PI0820363 B1 20170926; CN 101970609 A 20110209; CN 101970609 B 20141029; CN 101970610 A 20110209; CN 101970610 B 20151125; CN 101970611 A 20110209; CN 101970611 B 20140312; CN 101983227 A 20110302; CN 101983227 B 20130814; CN 102159675 A 20110817; CN 102159675 B 20160629; DK 2240556 T3 20160215; EP 2222819 A2 20100901; EP 2222819 B1 20210428; EP 2231823 A2 20100929; EP 2231824 A2 20100929; EP 2231824 B1 20160413; EP 2240556 A2 20101020; EP 2240556 B1 20160113; EP 2245119 A2 20101103; ES 2582392 T3 20160912; JP 2011504962 A 20110217; JP 2011504963 A 20110217; JP 2011504965 A 20110217; JP 2011504966 A 20110217; JP 2011505464 A 20110224; JP 5202644 B2 20130605; JP 5269089 B2 20130821; JP 5290317 B2 20130918; JP 5346036 B2 20131120; JP 5514118 B2 20140604; KR 101419977 B1 20140716; KR 101419978 B1 20140716; KR 101504384 B1 20150319; KR 101577082 B1 20151211; KR 101606680 B1 20160325; KR 20100105611 A 20100929; KR 20100107455 A 20101005; KR 20100107457 A 20101005; KR 20100107458 A 20101005; KR 20100107459 A 20101005; KR 20150138865 A 20151210; MX 2010005851 A 20100907; MX 2010005852 A 20100907; MX 2010005853 A 20101005; MX 2010005854 A 20100907; MX 2010005855 A 20100907; MX 357637 B 20180716; US 10010839 B2 20180703; US 2009145805 A1 20090611; US 2009159504 A1 20090625; US 2009173664 A1 20090709; US 2009178952 A1 20090716; US 2011297506 A1 20111208; US 2014334985 A1 20141113; US 8025790 B2 20110927; US 8216520 B2 20120710; US 8815081 B2 20140826; US 9295957 B2 20160329; US 9656230 B2 20170523; WO 2009073440 A2 20090611; WO 2009073440 A3 20091029; WO 2009073442 A2 20090611; WO 2009073442 A3 20091105; WO 2009073442 A9 20091217; WO 2009073446 A2 20090611; WO 2009073446 A3 20091203; WO 2009073447 A2 20090611; WO 2009073447 A3 20091022; WO 2009082585 A2 20090702; WO 2009082585 A3 20091112

DOCDB simple family (application)
US 27727508 A 20081124; BR PI0819674 A 20081125; BR PI0819687 A 20081124; BR PI0820360 A 20081124; BR PI0820362 A 20081124; BR PI0820363 A 20081124; CN 200880125753 A 20081125; CN 200880125754 A 20081124; CN 200880125755 A 20081124; CN 200880125761 A 20081124; CN 200880125762 A 20081124; DK 08855883 T 20081124; EP 08855883 A 20081124; EP 08857144 A 20081124; EP 08857382 A 20081124; EP 08858300 A 20081124; EP 08865032 A 20081125; ES 08865032 T 20081125; JP 2010536095 A 20081125; JP 2010536096 A 20081124; JP 2010536099 A 20081124; JP 2010536102 A 20081124; JP 2010536103 A 20081124; KR 20107013449 A 20081124; KR 20107014239 A 20081124; KR 20107014331 A 20081124; KR 20107014333 A 20081124; KR 20107014334 A 20081125; KR 20157033396 A 20081124; MX 2010005851 A 20081124; MX 2010005852 A 20081124; MX 2010005853 A 20081125; MX 2010005854 A 20081124; MX 2010005855 A 20081124; US 2008084520 W 20081125; US 2008084526 W 20081124; US 2008084530 W 20081124; US 2008084542 W 20081124; US 2008084543 W 20081124; US 201113212509 A 20110818; US 201414338749 A 20140723; US 27725508 A 20081124; US 27726308 A 20081124; US 27726808 A 20081124; US 27727008 A 20081124